## What is claimed is:

1	1. A method of access control in an access network infrastructure
2	connected to a plurality of service networks, comprising the steps of:
3	receiving a host configuration protocol message acknowledging
4	allocation of a network address, associated with a service network, to an
5	authenticated network access device;
6	creating an entry in an address resolution protocol cache using
7	information from the dynamic host configuration protocol message; and
8	restricting access to the access network infrastructure based on the
9	entries in the address resolution protocol cache.
1 2	2. The invention of claim 1 wherein the host configuration protocol is DHCP.
1	3. The invention of claim 1 wherein the address resolution protocol is ARP.
1 2 3	4. The invention of claim 1 further comprising the step of flushing the entry in the address resolution protocol cache if the network address is released by the network access device.
1 2 3	5. The invention of claim 1 wherein the entry in the address resolution protocol cache has an expiration time set to an expiration time of the network address allocated to the network access device.
1 2	6. The invention of claim 1 wherein the service networks utilize the Internet Protocol and wherein the addresses are Internet Protocol addresses.
1	7. The invention of claim 6 wherein the plurality of service networks are operated by different Internet Service Providers.
i 2	8. The invention of claim 6 wherein the plurality of service networks offer access to different Internet Protocol-based services.